

B<sup>26</sup> 4730. (Amended) The method of claim 4699, wherein heating the first portion of the selected section to a temperature sufficient to allow synthesis gas generation comprises:  
introducing an oxidizing fluid into the formation through a wellbore;  
transporting the oxidizing fluid substantially by convection into the first portion of the selected section, wherein the first portion of the selected section is at a temperature sufficient to support an oxidation reaction with the oxidizing fluid; and  
reacting the oxidizing fluid within the first portion of the selected section to generate heat and raise the temperature of the first portion.

4731. (Amended) The method of claim 4699, wherein heating the second portion of the selected section to a temperature sufficient to allow synthesis gas generation comprises:  
introducing an oxidizing fluid into the formation through a wellbore;  
transporting the oxidizing fluid substantially by convection into the second portion of the selected section, wherein the second portion of the selected section is at a temperature sufficient to support an oxidation reaction with the oxidizing fluid; and  
reacting the oxidizing fluid within the second portion of the selected section to generate heat and raise the temperature of the second portion.

B<sup>27</sup> 4733. (Amended) The method of claim 4699, wherein the one or more heat sources comprises one or more natural distributed combustors.

B<sup>28</sup> Sub C3 4781. (Amended) The method of claim 4764, wherein heating at least the portion of the selected section to a temperature sufficient to allow synthesis gas generation comprises:  
introducing an oxidizing fluid into the formation through a wellbore;  
transporting the oxidizing fluid substantially by convection into the portion of the selected section, wherein the portion of the selected section is at a temperature sufficient to support an oxidation reaction with the oxidizing fluid; and  
reacting the oxidizing fluid within the portion of the selected section to generate heat and raise the temperature of the portion.

*B32* 4783. (Amended) The method of claim 4764, wherein the one or more heat sources comprises one or more natural distributed combustors.

*B32*  
*Sub 87* 4817. (Amended) The method of claim 4800, wherein heating at least the portion of the selected section to a temperature sufficient to allow synthesis gas generation comprises:  
introducing an oxidizing fluid into the formation through a wellbore;  
transporting the oxidizing fluid substantially by convection into the portion of the selected section, wherein the portion of the selected section is at a temperature sufficient to support an oxidation reaction with the oxidizing fluid; and  
reacting the oxidizing fluid within the portion of the selected section to generate heat and raise the temperature of the portion.

*Sub 87*  
*B32* 4819. (Amended) The method of claim 4800, wherein the one or more heat sources comprises one or more natural distributed combustors.

*B32* 4836. (Amended) A method of treating a coal formation in situ, comprising:  
providing heat from one or more heat sources to at least a portion of the formation;  
allowing the heat to transfer from the one or more heat sources to a selected section of the formation such that the heat from the one or more heat sources pyrolyzes at least some of the hydrocarbons within the selected section of the formation;  
producing pyrolysis products from the formation;  
heating at least a portion of the selected section to a temperature sufficient to generate synthesis gas;  
controlling a temperature of at least a portion of the selected section to generate synthesis gas having a  $H_2$  to CO ratio different than a selected  $H_2$  to CO ratio;  
providing a synthesis gas generating fluid to at least the portion of the selected section to generate synthesis gas;  
producing synthesis gas from the formation  
providing at least a portion of the produced synthesis gas to a shift process

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B32 wherein an amount of carbon monoxide is converted to carbon dioxide; and  
separating at least a portion of the carbon dioxide to obtain a gas having a selected  
H<sub>2</sub> to CO ratio.

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B33 4853. (Amended) The method of claim 4836, wherein heating at least the portion of the  
selected section to a temperature sufficient to allow synthesis gas generation comprises:  
introducing an oxidizing fluid into the formation through a wellbore;  
transporting the oxidizing fluid substantially by convection into the portion of the  
selected section, wherein the portion of the selected section is at a temperature sufficient  
to support an oxidation reaction with the oxidizing fluid; and  
reacting the oxidizing fluid within the portion of the selected section to generate  
heat and raise the temperature of the portion.

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B34 4855. (Amended) The method of claim 4836, wherein the one or more heat sources  
comprises one or more natural distributed combustors.

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Respectfully submitted,



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